

**Advisory Commission on
State Emergency Communications**

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July 31, 1998

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Office of the Secretary
Federal Communications Commission
1919 M. Street, N.W., Room 222
Washington, D.C. 20554

RE: In the Matter of Joint Petition to Ensure Interoperability of E9-1-1
Emergency Calling Systems; CC Docket No. _____

Dear Commission Secretary:

Enclosed are an original and fifteen (15) copies of a Joint Original Petition on behalf of the Texas Advisory Commission on State Emergency Communications ("TX-ACSEC") et al. Please distribute the filing as appropriate, and file mark the extra copy and return it in the enclosed self-addressed, stamped envelope.

Thank you for your attention to this matter.

Sincerely,

Richard A. Muscat
Director, Regulatory/Legal Affairs
State Bar No. 14641550

ke
Enclosure

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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

AUG 4 1998

In the Matter of)
)
Joint Petition to Ensure)
Interoperability of E9-1-1 Emergency)
Calling Systems)

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CC Docket No. _____

To: The Federal Communications Commission

JOINT ORIGINAL PETITION¹

I.

Introduction

Improving the interoperability of 9-1-1 network and 9-1-1 Customer Premises Equipment (CPE) is an issue that has not progressed as quickly as wanted or needed by some state and local governmental 9-1-1 administrative entities (9-1-1 entities) or other parties interested in the most cost-effective and efficient provision of 9-1-1 emergency service. While standards bodies, such as National Emergency Number Association (NENA) technical committees, are doing excellent work to set additional recommended standards within their resources, the actual implementation of solutions to 9-1-1 interoperability issues has still been slower than wanted or needed by some 9-1-1 entities, and thus does not optimally enhance public safety. The current extent of actual 9-1-1 interoperability issues

¹ The Joint Petitioners are currently made up of the following parties: The Texas Advisory Commission on State Emergency Communications (TX-ACSEC), the Greater Harris County 9-1-1 Emergency Network, Tarrant County 9-1-1, Denton County 9-1-1, Bexar County 9-1-1, and the National Association of State Nine-One-One Administrators (NASNA).

nationwide and resulting problems from any lack of 9-1-1 interoperability are uncertain at this time. 9-1-1 interoperability issues and problems appear to be more or less of a critical issue depending on individual factors, such as the particular part of the country, the particular manufacturers' switches or combination of switches, the particular Incumbent Local Exchange Company (ILEC) area, and the particular external factors -- such as local Number Plan Area (NPA) relief problems and the desire of 9-1-1 entities to cost-effectively, efficiently, and appropriately implement Phase one and Phase two for wireless E9-1-1 emergency service pursuant to the Federal Communications Commission's (FCC's or Commission's) order in CC Docket No. 94-102.

A lack of interoperability for 9-1-1 network and 9-1-1 CPE can be a detriment or an additional cost factor to the implementation Phase one and Phase two of the FCC's order in CC Docket No. 94-102 for wireless E9-1-1 emergency service. A lack of interoperability for 9-1-1 network and 9-1-1 CPE can also be a detriment to the Commission's mandate, along with the mandate of individual state public utility commissions, under the federal Telecommunications Act of 1996 (FTA'96) to implement local telecommunications competition effectively. A lack of interoperability for 9-1-1 network and 9-1-1 CPE can further be an unnecessary and wasteful drain of the public funds that support E9-1-1 emergency call systems. It is for these reasons that the Joint Petitioners respectfully file this joint original petition.

The Joint Petitioners respectfully request the Commission to establish an investigation on 9-1-1 interoperability issues and any resulting problems caused by a lack of 9-1-1 interoperability. This will enable the issues and problems, or lack thereof, to be documented for the record and the

Commission's evaluation. The Commission can accomplish this initial investigation through a Notice of Inquiry (NOI), a Negotiated Rulemaking, a Joint Experts Meeting (JEM), or in whatever manner the Commission deems appropriate. Because of the public safety issues involved in this matter, the Joint Petitioners recommend that the Commission chose the investigative procedure that will allow these issues to be sufficiently evaluated in the quickest manner. Then after that initial investigative procedure, if the Commission determines it to be necessary and appropriate, the Commission can consider establishing any necessary specific rules, such as perhaps amendments to Part 68 of the Commission's rules.

II.

Implementation of Wireless E9-1-1 Emergency Service and Local Telecommunications Competition May Be Facilitated by Improving 9-1-1 Network and 9-1-1 CPE Interoperability.

Access to 9-1-1 emergency service is one of the most integral parts of any local telecommunications service. Whether that local telecommunications service is through an analog or digital wireless connection, a Regional Bell Operating Company (RBOC), other ILEC, Competitive Local Exchange Carrier (CLEC), or Private Branch Exchange (PBX) used in Shared Tenant Services (STS) or Residential Multi-tenant Services (RMTS),² state and local 9-1-1 entities charged to provision 9-1-1 emergency service must ensure that emergency 9-1-1 telecommunications

² The problems of identifying and locating callers stationed behind PBXs, key telephone systems and other MLTS equipment have been raised in the original Notice of Proposed Rulemaking in CC Docket 94-102 and fully briefed. Those issues should be resolved promptly on the current record in that docket, which includes a consensus settlement proposal from public safety and manufacturer/large user interests.

services are provided cost-effectively, efficiently, and appropriately. Interoperability issues and problems as to 9-1-1 networks and 9-1-1 CPE can make accommodating all of the above more difficult, more expensive, and, in a few cases for some areas, perhaps even unachievable or cost-prohibitive.³

Many members of the 9-1-1 community believe that in order to cost-effectively, efficiently, and appropriately (1) implement Phase one wireless E9-1-1 emergency service in compliance with CC Docket No. 94-102 and (2) respond to emerging local telecommunications competition issues, 9-1-1 networks and 9-1-1 CPE need to be more interoperable. Many members of the 9-1-1 community also believe that 8-digit Centralized Automated Message Accounting (CAMA) protocols for 9-1-1 network and 9-1-1 CPE cannot cost-effectively, efficiently, and appropriately meet the 9-1-1 challenges raised by today's telecommunications environment.⁴

The Commission may recall some of the debate surrounding the petition filed by the Cellular Telecommunications Industry Association (CTIA) concerning the non-call path solution vs. the call path solution for providing Phase one wireless E9-1-1 emergency service in compliance with

³ As stated earlier, the extent of actual 9-1-1 interoperability issues and problems appear to be subject to particular individual circumstances and varying opinions.

⁴ In the past, changes to 9-1-1 emergency systems were driven largely by the public safety decisions of state and local 9-1-1 entities (e.g., does the local government want ANI only, ANI and Selective Routing (SR) service, or ANI, ALI, and SR service). The FCC followed this precedent when it left implementation of wireless E9-1-1 service to the requests of state and local 9-1-1 entities. However, in addition to the requests and decisions of state and local 9-1-1 entities, issues like NPA relief and the potentially corresponding need for 9-1-1 networks and SR tandems to exceed four NPAs, the potential need to re-home one or more NPAs to another switch manufacturer's 9-1-1 SR tandem, or the need for 9-1-1 CPE to handle 10-digit SR or 10-digit dialing required with an area code overlay, and the need for 9-1-1 networks and 9-1-1 CPE to respond to other yet unidentified issues arising from local wireless and wireline telecommunications competition, all necessitate interoperable, non-proprietary 9-1-1 networks and 9-1-1 CPE.

CC Docket No. 94-102. A benefit of the non-call path solution is that it does not require 9-1-1 network and 9-1-1 CPE modifications, although it requires additional 9-1-1 database work. The call path solution does not have the additional 9-1-1 database work, but may have 9-1-1 network and 9-1-1 CPE issues, including 9-1-1 interoperability issues and problems, depending on the 9-1-1 network and 9-1-1 CPE in a particular area. Many 9-1-1 entities would argue that the same 9-1-1 network and 9-1-1 CPE modifications necessary to implement a call path solution, as opposed to a non-call path solution, for Phase one wireless E9-1-1 are also necessary or will be necessary in the near future to respond to other local telecommunications issues, such as NPA relief, rate center consolidation, and Local Number Portability (LNP). But the current extent of actual available alternatives to 8-digit CAMA protocols that can be implemented today is uncertain. Some 9-1-1 SR tandems and 9-1-1 CPE cannot accept a 9-1-1 emergency call delivered from a wireless carrier containing two distinct sets of digits (20-digits), one set being the calling party callback number and the other set being the emergency service routing digits (ESRD). To cost-effectively, efficiently, and appropriately solve the current and future 9-1-1 telecommunications challenges, many 9-1-1 entities believe that it is necessary for 9-1-1 networks and 9-1-1 CPE to ubiquitously and seamlessly have the ability to pass 20-digits to Public Safety Answering Points (PSAPs) through enhanced Multi-Frequency Signaling (enhanced MF) for 10- or 20-digits consistent with NENA standards and/or to have non-proprietary Integrated Services Digital Network (ISDN) solutions for 9-1-1 emergency service. It is for these reasons that a Commission initial investigation into the extent of 9-1-1 interoperability issues and any resulting problems is appropriate at this time

and would enable the Commission to make a determination on whether any further action is needed.

III.

Individual States May Not Be Able to Solve these Issues Alone

There are differing opinions and information available as to whether the switch manufacturers, the ILECs, the CPE manufacturers, or others are the more responsible party for any existing 9-1-1 interoperability issues and problems in a particular area or more responsible for the lack of actual implementation of solutions. If the responsibility for not implementing actual solutions is not limited to the ILECs, then state public utility commissions alone may be unable to accomplish the implementation of solutions to these issues and problems. For example, while a state public utility commission can order a Regional Bell Operating Company (RBOC) or other Incumbent Local Exchange Company (ILEC) to modify its 9-1-1 network to handle enhanced MF signaling for 10- or 20-digits consistent with NENA standards or order the RBOC or other ILEC to implement non-proprietary ISDN solutions for 9-1-1 emergency service, such orders by state public utility commissions could be an exercise in futility if switch manufacturers and CPE manufacturers do not supply the necessary non-proprietary, interoperable products, services, and upgrades to enable such to be implemented expeditiously.

The Commission should establish an investigation to document the extent of 9-1-1 interoperability issues and any resulting problems from a lack of such interoperability. A Commission investigation would facilitate defining specific issues and problems and, if determined to be necessary by the Commission, would provide the opportunity to facilitate any needed

solutions to such problems in an appropriate manner, whether at the federal or state level or both.

IV.

Approaches to Facilitate Solutions

The Commission can take different approaches to facilitating the evaluation of and potential solutions to 9-1-1 interoperability issues and problems. Initial investigative options, as stated earlier, include a NOI, a JEM, a Negotiated Rulemaking, or some other investigative procedure. The Joint Petitioners recommend that the Commission chose the investigative procedure that will allow these issues to be sufficiently evaluated in the quickest manner. It may ultimately turn out that the initial investigation establishes that there are no 9-1-1 interoperability issues or problems that need further attention by the Commission or state public utility commissions. If this turns out to be true, then that would be good news to 9-1-1 entities that are currently wrestling with these issues. On the other hand, the initial investigation may determine that additional Commission or state public utility commission action is warranted through specific rules. This would also be good news to 9-1-1 entities that are currently wrestling with these issues. In other words, an initial Commission investigation, regardless of the outcome or whether any rules are ultimately proposed or adopted, would be helpful in facilitating further 9-1-1 interoperability in a timely fashion either through the adoption of specific rules or documenting in the initial investigation that any existing 9-1-1 interoperability issues and resulting problems have been resolved or that they can be resolved within a reasonable period without any further action.

If after the initial investigation a Notice of Proposed Rulemaking (NPRM) is shown to be warranted, one approach that the Commission may

wish to consider is proposing amendments to Part 68 of the Commission's rules to ensure 9-1-1 network and 9-1-1 CPE equipment are manufactured and deployed as "9-1-1 Compliant" from an interoperability perspective based on certain conditions and specifications. The Commission could take comments through a NPRM on what conditions and specifications should be imposed for an equipment manufacturer to meet in order to label a product (e.g., all CO switches, E9-1-1 SR tandem switches, PBX/ACD switches, PBX switches used in STS/RMTS scenarios, PBX switches used in "regular" commercial scenarios, and PSAP CPE, including PC-based IWS) as "9-1-1 Compliant." Such a certification could have immediate impacts because all 9-1-1 procurement decisions or any state regulatory mandates (i.e., all products that could be purchased by 9-1-1 entities or used by state regulated carriers) would be predicated on the stipulate of "certification" as "9-1-1 Compliant" under FCC Rules.⁵

V.

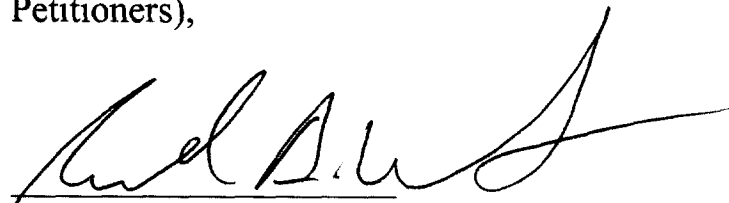
CONCLUSION

For the reasons discussed above, the Joint Petitioners respectfully requests that the Federal Communications Commission consider this petition expeditiously and proceed to investigate the extent of 9-1-1 interoperability issues and any resulting problems from any lack of 9-1-1 interoperability. Options for the initial investigation that the Commission may wish to consider include a Notice of Inquiry, a Joint Experts Meeting, a Negotiated Rulemaking, or whatever other procedure that the Commission deems appropriate. An initial investigation would provide a valuable

⁵ But again, whether the Commission would ultimately determine that amendments to Part 68 or other new FCC or state rules are appropriate would depend on the results of the initial investigation through a NOI, a JEM, a Negotiated Rulemaking, or another appropriate investigative procedure.

opportunity to document the extent of actual 9-1-1 interoperability issues and any resulting problems. Based on that initial investigation, the Commission can determine what action, if any, is necessary and appropriate to facilitate further improvements to 9-1-1 interoperability for 9-1-1 network and/or 9-1-1 Customer Premises Equipment.

Respectfully submitted (with permission from all the Joint
Petitioners),

A handwritten signature in black ink, appearing to read 'Richard A. Muscat', written over a horizontal line.

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